To: Scott Tomashefsky, California Energy Commission
From: Ken Krich, Sustainable Conservation
121 Second Street
San Francisco, CA 94105
415 977 0380 x 320
kkrich@suscon.org
Subject: **Comments on the Draft Committee Report of the California Energy Commission's "Distributed Generation Strategic Plan"**
Date: May 8, 2002

We want to compliment the Energy Commission staff on an excellent Draft Committee Report. We are working with the California dairy industry to encourage the building of methane digesters under a program funded by SB 5 X. These digesters, generally in the 150-400 kW range, produce electricity out of cow manure, and produce significant environmental benefits including reduced air and water pollution. We will confine our comments to two specific issues that affect our initiative and have wider implications.

- We think that any distributed generation strategy should attempt to overcome the financial disincentives facing smaller (100-1000 kW) distributed generators such as dairy methane digesters and fuel cells currently, and wind and solar in the future if the sunset provision of net metering is not extended.

- We think that distributed generators, such as landfill gas energy projects and dairy methane digesters, which produce significant environmental benefits, should stay in the mix. We think that the Draft's comments on the California Air Resources Board's procedure under AB 1298 may be interpreted incorrectly.

SMALLER DISTRIBUTED GENERATORS NEED A MARKET

On Page 32 and 33 the Draft discusses some of the "institutional and regulatory" barriers, to distributed generation. These are barriers because they make distributed generation uneconomic for smaller producers. The generator has no way to gain financial compensation for its exported power, it has to pay considerable standby charges, and the Interconnection Study required under Rule 21 for an small exporter can be very expensive and time consuming. To encourage smaller distributed generators, and gain the benefit of their capacity for the grid, these problems need to be addressed.

Currently public utilities in California are required to buy excess power from distributed generators with nameplates of 100 kW or less. They no longer have that obligation if the nameplate is greater than 100 kW. This gap developed in the process of restructuring under AB 1890 and was created by CPUC decision D96-10-036. Larger distributed generators can sell power to the ISO if they have 1000 kW to schedule.

This leaves a gap in the market for distributed generators with nameplates between 100 and 1000 kW. Until the end of this 2002, this problem is solved for the wind and solar industries, which have net metering under CPUC Section 2827. It needs to be solved for

wind and solar longer term, and it needs to be solved for other technologies such as dairy methane digesters and fuel cells.

Distributed generators in the size gap need a spot or contract market, or at least net metering, in order to make their projects economically feasible. The ISO is considering a pilot project to aggregate generators that are individually smaller than 1000 kW, as the Draft mentions on page 33. The net metering program for wind and solar could be extended past 2002 and expanded to other technologies. The Draft on page 32 Heading 3 could be more specific on this. Finally, by law or CPUC ruling, whichever is appropriate, public utilities could again be required to purchase excess power from distributed generators with nameplates of 1000 kW or below.

CALIFORNIA AIR RESOURCES BOARD PROCEEDINGS UNDER AB 1298 WILL NOT AND SHOULD NOT ELIMINATE WASTE GAS DIGESTERS

The Draft Committee Report references California Air Resources Board (CARB) activity on pages 8, 17 and 30. We believe that the references are to a CARB proceeding mandated by AB 1298. We think the Draft does not accurately convey the effect of this proceeding.

- It is our understanding that the CARB standards are proposed and will not be adopted until later this summer.

- The CARB standards are applicable only to distributed generation units that are exempt from local permitting. The CARB will provide guidance to local districts for units that are permitted locally.

- The CARB is not providing guidance for distributed generators to reduce emissions to the level of state-of-the-art central power plants until 2007, and it is guidance, not standards.

- We think that distributed generators such as landfill gas energy projects and dairy methane digesters, that produce significant net environmental benefits, will not and should not be discouraged under AB 1298.

PAGE 8

On page 8 the Draft states that "In a related matter, the California Air Resources Board recently adopted air emissions standards applicable to distributed generation units, effective January 1, 2003."

Assuming that this refers to the CARB procedure under AB 1298, then it is our understanding that the standards are in proposal form and will not be adopted until later this summer. Perhaps the writers of the Draft assume that the standards will be adopted by the time the Distributed Generation Strategic Plan is finalized.

Further under AB 1298, the standards apply only to distributed generation units that are "exempt from district permitting requirements."

We believe the sentence would be more accurate if it stated, "In a related matter, the California Air Resources Board will be adopting air emissions standards applicable to distributed generation units that are exempt from district permitting requirements, effective January 1, 2003."

PAGE 17

On page 17 the first full paragraph refers to this proceeding again. It states that the CARB started a process that "has produced new regulations restricting the amount of emissions allowed from distributed generation units." Based on the comments above we believe it would be more accurate to state that the CARB "will produce new regulations restricting the amount of emissions allowed from distributed generation units that are exempt from district permitting requirements."

The remainder of the paragraph could be interpreted to imply that the same January 1, 2003 regulations will limit distributed generation technology to fuel cells, photovoltaics, and wind turbines.

The AB 1298 legislation does not direct the CARB to limit units to distributed generation that "meets or exceeds the emissions profile of a state-of-the-art, central station power plant." It asks the CARB to give guidance (not requirements) to the districts. Further it does not require that this guidance be given by January 1, 2003. Rather it requires the guidance "by the earliest practicable date" which the CARB has interpreted as 2007.

The Draft makes some of these distinctions on Page 30. We encourage you to rewrite this paragraph on Page 17 to eliminate the possible misinterpretation.

PAGE 30

The Draft raises a good question; can emissions from distributed generators that burn methane in the form of natural gas meet the 2007 guidance? If that is a difficult goal, then it will be far more difficult for distributed generators that burn waste gas from landfills or biogas from animal manure to meet the guidance.

Landfill gas and biogas from animal manure in lagoons contains 50-70% methane, a greenhouse gas. Landfills are the largest, and animal manure lagoons the third largest source of anthropogenic methane production in the US. They also produce Reactive Organic Gases (known as ROG, essentially the same as VOC), which are a precursor to ozone. Burning the landfill gas or biogas to produce electricity destroys the methane and the ROGs that go through the generator, but combustion also creates NOx. NOx emissions can be reduced considerably by the best available control technology (BACT) but not to the level of an engine burning natural gas.

Even if animal manure biogas generators cannot meet central station emission standards for NOx by 2007, they will produce a net environmental benefit because they destroy pre-existing methane and ROGs, reduce odors, reduce water pollution, destroy pathogens, and improve the quality of the fertilizer. The CARB itself has recognized their air quality

benefits in their “Proposed Clean Air Plan: Strategies for a Healthy Future 2002-2020” Volume III Chapter K. These benefits should be taken into account by local districts when evaluating them against the CARB’s guidance under AB 1298.